

Amendment to the Drawings:

The attached replacement sheet of drawings includes changes to Fig. 1. In Fig. 1, boxes have been labeled with texts, which correspond to acronyms of names used for these boxes.

REMARKS

In the Office Action of May 26, 2010, the drawings were objected to “because conventional features illustrated in the drawing as rectangular boxes must be labeled for understanding in this application. See 37 CFR 1.83(a).” In addition, claims 1-9, 11-17 and 19 were rejected under 35 U.S.C. 103(a) as allegedly being unpatenable over U.S. Patent App. Pub. No. 2003/0007473 A1 (hereinafter “Strong et al.”) in view of U.S. Patent No. 6,577,229 (hereinafter “Bonneau et al.”), U.S. Patent App. Pub. No. 2002/0024421 A1 (“Kang”), Applicant Admitted Prior Art (AAPA) and U.S. Patent No. 5,051,741 (hereinafter “Wesby”). Claim 18 was rejected under 35 U.S.C. 103(a) as allegedly being unpatenable over Strong et al. in view of Bonneau et al. and Kang, and in further view of U.S. Patent Number 5,610,947 (hereinafter “Balasubramanian et al.”).

As a preliminary matter, Applicants note that AAPA and Wesby were not used to reject claim 18, which appears to be in error. If so, Applicants respectfully request that the Examiner correct this error in any subsequent Office Action.

With respect to the drawing objection, Applicants hereby submit a replacement sheet of drawings for Fig. 1. In the amended Fig. 1, boxes 4, 9, 16-27, 30-38, 41 and 43 have been labeled with acronyms of names used for the boxes. As such, Applicants respectfully request that the drawing objection be withdrawn.

With respect to the Section 103 rejections, a telephone interview between the undersigned attorney and Examiner Nabil H. Syed was conducted on September 3, 2010. In the telephone interview, possible proposed amendments to the independent claims 1, 5, 9 and 14 were discussed. No agreement was reached to the allowability of the pending claims.

Notwithstanding the telephone interview of September 3, 2010, Applicants respectfully assert that the independent claims 1, 5, 9 and 14 are not obvious over Strong et al. in view of Bonneau et al., Kang, AAPA and Wesby, as explained below. In addition, Applicants have amended the dependent claims 2, 6, 12, 13, 16 and 17 more clearly distinguish the claimed invention from the cited references. Claim 2 has also been amended correct a minor error. In view of the claim amendments and the following remarks, Applicants respectfully request that the pending claims 1-9 and 11-19 be allowed.

1) Patentability of Independent Claims 1, 5, 9 and 14

The independent claims 1, 5, 9 and 14 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Strong et al. in view of Bonneau et al., Kang, AAPA and Wesby. Although the language and scope of claims 5, 9 and 14 differ from claim 1, Applicants respectfully assert that the below remarks with respect to claim 1 are also applicable to claims 5, 9 and 14 due to similar limitations recited in these claims. As explained below, the independent claim 1 is not obvious over the cited references because (a) all the limitations of claim 1 are not taught by the cited references, (b) the Office Action has failed to provide a proper articulated reasoning to combine the teachings of Strong et al. and Bonneau et al. and (c) Office Action has failed to provide a proper articulated reasoning to combine the teachings of Wesby with the teachings of Strong et al., Bonneau et al., Kang and AAPA. As such, Applicants respectfully request that the independent claim 1, as well as the independent claims 5, 9 and 14, be allowed.

- a) All the limitations of claim 1 are not taught by Strong et al., Bonneau et al., Kang, AAPA and Wesby

The independent claim 1 recites the limitations of “*a transmission coil electrically connected to the first signal-processing means to transmit the signals for the contactless station-transponder communication from the first signal-processing mean and to receive the signals for the contactless station-transponder communication to be processed by the first signal-processing mean so that the*

contactless station-transponder communication is performed inductively between the communication station and the at least one transponder, the transmission coil being also electrically connected to the second signal-processing means to transmit the signals for the contactless station-station communication from the second signal-processing mean and to receive the signals for the contactless station-station communication to be processed by the second signal-processing mean so that the contactless station-station communication is performed inductively between the communication station and the at least one further communication station,” which are not taught by Strong et al., Bonneau et al., Kang, AAPA and Wesby. Consequently, all the limitations of the independent claim 1 are not taught by the teachings of these cited references. Thus, the independent claim 1 is not rendered obvious by the cited references.

The Office Action on pages 6 and 7 correctly states that the combination of Strong et al. and Bonneau et al. “fails to explicitly disclose that the transmitting means includes a transmission coil to transmit and receive different signals.” The Office Action then cites Kang as teaching the claimed transmission coil. However, Kang merely teaches an RFID tag reader 10 that includes an antenna coil 160 (see Fig. 1) that is connected to a single data decoder. The RFID tag reader 10 communicates only to RFID tags 20 using the antenna coil 160. That is, Kang only teaches using an antenna coil for communication between an RFID tag reader and RFID tags. Kang fails to teach using an antenna coil for communications between an RFID tag reader and RFID tags and between the same RFID tag reader and another RFID tag reader. That is, Kang fails to teach the same antenna coil for reader-to-reader communications and for reader-to-tag communications. Consequently, Kang fails to teach “*a transmission coil electrically connected to the first signal-processing means to transmit the signals for the contactless station-transponder communication from the first signal-processing mean and to receive the signals for the contactless station-transponder communication to be processed by the first signal-processing mean so that the contactless station-transponder communication is performed inductively between the communication station and the at least one transponder, the transmission coil being also electrically connected to the second signal-processing means to transmit the signals for the contactless station-station communication from the second signal-processing mean and to receive the signals for the contactless station-*

station communication to be processed by the second signal-processing mean so that the contactless station-station communication is performed inductively between the communication station and the at least one further communication station” (emphasis added), as recited in the independent claim 1.

These limitations of claim 1 regarding the claimed transmission coil are also not taught by the AAPA or Wesby. Consequently, all the limitations of the independent claim 1 are not taught by the teachings of Strong et al., Bonneau et al., Kang, AAPA and Wesby. Thus, the independent claim 1 is not rendered obvious by the cited references.

Applicants note herein that it appears that the Office Action has equated communications using electromagnetic means or signals with inductive coupling, as indicated on page 8 of the Office Action. Applicants respectfully submit that the use of electromagnetic means or signals does not necessary involve inductive coupling. As is well known in the art, electromagnetic signals include all sorts of signals, including but not limited to microwaves, radio waves, infrared and ultraviolet light, visible light, X-rays and gamma rays. Thus, the use of the term “electromagnetic” does not imply inductive coupling, as recited in the independent claim 1. Thus, Applicants respectfully assert that the cited references also do not teach the emphasized portions of the limitations “*a transmission coil electrically connected to the first signal-processing means to transmit the signals for the contactless station-transponder communication from the first signal-processing mean and to receive the signals for the contactless station-transponder communication to be processed by the first signal-processing mean so that the contactless station-transponder communication is performed inductively between the communication station and the at least one transponder, the transmission coil being also electrically connected to the second signal-processing means to transmit the signals for the contactless station-station communication from the second signal-processing mean and to receive the signals for the contactless station-station communication to be processed by the second signal-processing mean so that the contactless station-station communication is performed inductively between the communication station and the at least one further communication station”* (emphasis added), as recited in the independent claim 1.

- b) Office Action has failed to provide a proper articulated reasoning to combine the teachings of Strong et al. and Bonneau et al.

The Office Action on page 6 states that “(f)rom the teaching of Bonneau it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the interrogator of Strong to include two signal processing means to process the signals received from first protocol executing means and second protocol executing means as taught be Bonneau in order to improve the interrogators so they can communicate with devices having different communications protocols through a single port (see col. 4, lines 37-39 and col. 2 lines 65-67).”

As the MPEP makes clear, “[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that ‘rejections based on obviousness cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.’ *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).” MPEP §2142.

However, the only statement made by the Examiner in support of an obviousness rejection of claim 1 regarding combining the teachings of Strong et al. and Bonneau et al. is that “it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the interrogator of Strong to include two signal processing means to process the signals received from first protocol executing means and second protocol executing means as taught be Bonneau in order to improve the interrogators so they can communicate with devices having different communications protocols through a single port,” which is a mere conclusory statement and fails to clearly articulate a rationale in support of the obviousness rejection, as required by the MPEP and *KSR*. The Examiner’s identification of the teachings of Strong et al. and Bonneau et al., along with the conclusory statement of “it would have been obvious... in order to improve the interrogators so they can communicate with devices having different communications

protocols through a single port,” without any rationale in support of that conclusion, does not satisfy the requirements for establishing a *prima facie* case of obviousness.

Assuming (because there is no explicit statement of the Examiner’s rationale in the Office Action) that the Examiner’s rationale is that there is some teaching, suggestion, or motivation that would have led one of ordinary skill to combine the cited references’ teachings to arrive at the claimed invention, MPEP §2143 (G) and the applicable case law require the following:

To reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries. Then, Office personnel must articulate the following:

- (1) a finding that there was some teaching, suggestion, or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- (2) a finding that there was reasonable expectation of success; and
- (3) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

... If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art. (emphasis added).

If the Applicants’ assumption of the Examiner’s rationale as described above is correct, then Applicants are entitled to have the foregoing required items articulated. If the Examiner’s rejection is based on some other rationale, Applicants are entitled to know what that rationale is and to be given an opportunity to respond. If an explanation of the Examiner’s rationale is presented in the next Office Action, the next Office Action should not be made final. “The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.” MPEP §2142.

In view of the foregoing, Applicants respectfully submit that the Examiner has merely provided a conclusory statement in support of the obviousness rejection with respect to combining the teachings of Strong et al. and Bonneau et al. and failed to clearly articulate a rational to support his conclusion, as required by the MPEP and *KSR*.

- c) Office Action has failed to provide a proper articulated reasoning to combine the teachings of Wesby with the teachings of Strong et al., Bonneau et al., Kang and AAPA

The Office Action on page 8 states that “Wesby’s known improvement could have been applied in the same way to the interrogator of the Strong and the result would have been predictable” and that “[t]herefore the claimed subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.”

Again, as the MPEP makes clear, “[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that ‘rejections based on obviousness cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.’ *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).” MPEP §2142.

However, the only statement made by the Examiner in support of an obviousness rejection of claim 1 regarding combining the teachings of Wesby with the teachings of Strong et al., Bonneau et al., Kang and AAPA is that “Wesby’s known improvement could have been applied in the same way to the interrogator of the Strong and the result would have been predictable,” which is a mere conclusory statement and fails to clearly articulate a rationale in support of the obviousness rejection, as required by the MPEP and *KSR*. The Examiner’s identification of the teachings of Wesby, along with the conclusory statement of “Wesby’s known improvement could have been applied in the same way to the interrogator of the Strong and the result would have been predictable,” without any rationale in support of that conclusion, does not satisfy the requirements for establishing a *prima facie* case of obviousness.

Assuming that the Examiner's rationale is that using the teachings of Wesby in the interrogator of Strong et al. is a simple substitution of one known element for another to obtain predictable results to arrive at the claimed invention, MPEP §2143 (B) and the applicable case law require the following:

"To reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries. Then, Office personnel must articulate the following:

(1) a finding that the prior art contained a device (method, product, etc.) which differed from the claimed device by the substitution of some components (step, element, etc.) with other components;

(2) a finding that the substituted components and their functions were known in the art;

(3) a finding that one of ordinary skill in the art could have substituted one known element for another, and the results of the substitution would have been predictable; and

(4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

... If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art." (emphasis added).

If the Applicants' assumption of the Examiner's rationale as described above is correct, then Applicants are entitled to have the foregoing required items articulated. If the Examiner's rejection is based on some other rationale, Applicants are entitled to know what that rationale is and to be given an opportunity to respond. If an explanation of the Examiner's rationale is presented in the next Office Action, the next Office Action should **not** be made final. "The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." MPEP §2142.

In view of the foregoing, Applicants respectfully submit that the Examiner has merely provided a conclusory statement in support of the obviousness rejection with respect to combining the teachings of Wesby with the teachings of Strong et al., Bonneau et al., Kang and AAPA.

For the reasons stated above, Applicants respectfully assert that the independent claim 1 is not obvious over Strong et al. in view of Bonneau et al., Kang, AAPA and Wesby. As such, Applicants respectfully request that the independent claim 1 be allowed.

As explained above, these remarks regarding the independent claim 1 are also applicable to the independent claims 5, 9 and 14, which also recite limitations similar to those of the independent claim 1. Thus, the independent claims 5, 9 and 14 are also not obvious over Strong et al. in view of Bonneau et al., Kang, AAPA and Wesby. As such, Applicants respectfully request that the independent claims 5, 9 and 14 be allowed as well.

2) Patentability of Dependent Claims 2-4, 6-8, 11-13 and 15-19

Each of the dependent claims 2-4, 6-8, 11-13 and 15-19 depends on one of the independent claims 1, 5, 9 and 14. As such, these dependent claims include all the limitations of their respective base claims. Therefore, Applicants submit that these dependent claims are allowable for at least the same reasons as their respective base claims.

As an example, the amended dependent claim 2 recites the limitations of *“wherein the first protocol-executing means have energy-supply signal generating means that are configured to generate the energy-supply signal each time the handling of the station-transponder protocol starts, and wherein the second protocol-executing means have synchronizing-signal generating means that are configured to generate a synchronizing signal each time the handling of the station/station protocol starts, the energy-supply signal for each handling of the station-transponder protocol and the synchronizing signal for each handling of the station/station protocol being transmitted through the transmission coil”* (emphasis added), which are not taught by Strong et al., Bonneau et al., Kang, AAPA and Wesby. As explained above, with respect to the independent claim 1, the cited references of Strong et al., Bonneau et al., Kang, AAPA and Wesby do not teach using the same transmission coil for contactless station-transponder communication and for contactless station-station

communication. Thus, these cited references also fail to teach “*the energy-supply signal for each handling of the station-transponder protocol and the synchronizing signal for each handling of the station/station protocol being transmitted through the transmission coil,*” as recited in claim 2. Thus, the dependent claim 2 is not obvious over Strong et al. in view of Bonneau et al., Kang, AAPA and Wesby.

The above remarks regarding claim 2 can also be applied to the amended dependent claims 6, 12, 13, 16 and 17 with recite similar limitations. As such, Applicants respectfully submit that claims 6, 12, 13, 16 and 17 are not obvious over Strong et al. in view of Bonneau et al., Kang, AAPA and Wesby for similar reasoning as claim 2.

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,
Kunkat et al.

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By: /thomas h. ham/
Thomas H. Ham
Registration No. 43,654
Telephone: (925) 249-1300